

EXHIBIT 2
FILED UNDER SEAL

Message

From: [REDACTED]@google.com]
Sent: 3/27/2017 4:28:51 PM
To: [REDACTED]@google.com]
CC: [REDACTED]@google.com]; [REDACTED]@google.com]; [REDACTED]@google.com]; [REDACTED]@google.com]; [REDACTED]@google.com]
Subject: Re: Would [REDACTED] prefer bidding into a second-price auction?

I think we want to be flexible on the auction format details, as long as there's commitment to building something that can be perceived by all parties as fair.

[REDACTED]

For general consumption we'd want to hash out what rules are mutually acceptable, as well as how to present the auction format to pubs and competing buyers. As an opening move we could declare that we'd prefer everyone to compete in a second price auction (and encouraging buyers to set `min_payment` to represent their demand back-bench). If they declare preference for first price auction, we should be willing to at least work through a credible proposal for how to make this happen.

On Mon, Mar 27, 2017 at 12:07 PM, [REDACTED]@google.com> wrote:
Completely agree, but a couple of comments inline:

On Mon, Mar 27, 2017 at 11:36 AM, [REDACTED]@google.com> wrote:
As a fallback if they object to second price, setting `min_payment` is a really good idea.

On Mon, Mar 27, 2017 at 11:30 AM [REDACTED]@google.com> wrote:
Yes, we could try that. But because they'll shade bids heavily we'll likely miss a lot of potential auction pressure, especially on high CPM queries.

Ideally we would convince them to bid second price (true value) and give them sufficient protections and transparency for them to verify the auction is honest.

Yeah, this would be fantastic.

If not, and if we do the `min_payment` thing as a fallback, [REDACTED] raised the good point that this is basically them giving AdX buyers "last look", which they may not like. :)

If they bring this up, we could point out that they are not required to do this; it's because they wanted to pay their bid. They could choose to submit true second-price bids and verify truthfulness.

If that doesn't convince them (it may very well not), we could consider something like exempting them from second-pricing AdX buyers (i.e. AdX buyers don't get last look) specifically on queries where they set `min_payment = bid`, with the hope that they'll start to experiment with bidding truthfully going forward, as opposed to being locked into a first-price world. This last bit requires more thought, though.

[REDACTED]

On Mon, Mar 27, 2017 at 11:19 AM [REDACTED]@google.com> wrote:
Thanks, [REDACTED]

I wonder if we could get them to consider buying in AdX which is a second price exchange, but have them effectively be first-priced. Basically, they set min_payment equal to their bid, so if they win, they pay their bid. That is, it works like first-price from their end for now, but they get to experiment with second price so they can see if the advantages work well for them?

[REDACTED]

On Mon, Mar 27, 2017 at 11:08 AM, [REDACTED]@google.com> wrote:

That's correct. Although second price auctions may be more efficient ([REDACTED]'s point), [REDACTED] doesn't trust the auction is being run honestly. They prefer first price because there's no gap for the SSP to manipulate the auction's clearing price.

From an intelligent bidder's POV most auctions aren't run honestly, with the level of dishonesty ranging from mild (e.g. RPO) to moderate (e.g. soft floors) to borderline fraudulent (e.g. bidder and seller see different clearing prices w/ SSP pocketing the difference). [REDACTED] would prefer an auction dynamic that doesn't make these types of scenarios possible.

On Mon, Mar 27, 2017 at 10:31 AM, [REDACTED]@google.com> wrote:

I'm a little unclear on their preference - [REDACTED] can you clarify? [REDACTED] mentioned on another thread they prefer first price.

On Mon, Mar 27, 2017 at 10:28 AM, [REDACTED]@google.com> wrote:

Ok, [REDACTED] recently shared [this doc](#) or [REDACTED]'s announcement. The most relevant principle seems to be that the auction should be won by "the [demand] source willing to pay the most", but I interpret this as just meaning "highest bidder". And in fact, you could argue that second-price auctions more accurately express what someone is willing to pay, as opposed to first price auctions, which express what buyers think other buyers are willing to pay.

There's also an interesting clause on "There is no arbitrage", which I wonder about: Does anyone have a sense of whether they're thinking about something specific?

Thanks,
[REDACTED]

On Fri, Mar 24, 2017 at 8:39 PM, [REDACTED]@google.com> wrote:

Do we have an idea if [REDACTED] prefers first price? Also, does someone have a link to the set of principles [REDACTED] wants in the HB auctions they participate in? I've heard a couple of things anecdotally, but not seen them listed.

Happy to meet next week to discuss risks / concerns.

Thanks,
[REDACTED]

On Fri, Mar 24, 2017 at 5:52 PM, [REDACTED]@google.com> wrote:

We can definitely try, but I also want to make sure we know all the ins and outs of the give. We definitely want them in the auction, but what if they insist on first price? I think they liked that [REDACTED] didn't get trumped by AdX, and they now see the benefit of being out of line items since AdX can still trump. Makes sense to me that if they are first price/out of the auction, then they can't get DFL, which is a key value of being an AdX buyer. Definitely not one for negotiating against ourselves, but would like to flesh out fully the concept of "Special" and work with this group to know the risks of any potential concessions in advance of next Thursday's meeting. Can we get a tiger team together?

the authors are not aware of any other studies that have examined the effects of the use of a single, non-validated, self-report measure of perceived effort on the relationship between perceived effort and the other variables examined in this study.

"It is not enough that we do our best; sometimes we must do what is required." - Winston Churchill

On Fri, Mar 24, 2017 at 9:38 AM, [REDACTED]@google.com> wrote:
Really like the "Network Bidding" direction with AdX auction pressure and an external positioning that makes [REDACTED] happy with how it's different from regular AdX buyer.

I think we should be flexible on how we run the 2nd price auction for this new category of buyer - they'll probably have the same worries as GDN in terms of AdX optimizations (RPO, DRS). It'd be good if we can convince them RPO and no soft floors is ok.

On Fri, Mar 24, 2017 at 8:34 AM, [REDACTED]@google.com> wrote:
Ok that makes sense in terms of the reason to call it a new business ("Network bidding" or similar I guess)?

On Fri, Mar 24, 2017 at 8:29 AM [REDACTED]@google.com> wrote:
Regarding auction logic - the original intent was for this to work as [REDACTED] describes (functionally they participate in AdX 2p auction, then clearing price from 2p auction participates in [REDACTED] 1p auction... just like today w/o last look).

+1 to [REDACTED]'s comment that our goal should be to create a new class of AdX buyer that gets special privileges (e.g. platform policies & no creative presubmit requirement). Note that we would need to call it something different ([REDACTED]) and we would need to re-contract with pubs if billing flows change, but functionally it'd still behave a lot like AdX.

On Fri, Mar 24, 2017 at 8:05 AM [REDACTED]@google.com> wrote:
If it is not, there is not really much point and they might as well go into the [REDACTED] auction. This should effectively introduce a new class of ADX buyer that is excluded from certain rules. I mentioned to [REDACTED] in the hall that we really needed to keep the networks in the ADX auction, so I think when we are ready to share we should.

On Fri, Mar 24, 2017 at 7:46 AM [REDACTED]@google.com> wrote:
:) [REDACTED] email just made me realize I may have been interpreting this wrong: I took it for granted that given our current [REDACTED], they would functionally bid into the AdX auction and then have the clearing price sent to [REDACTED], just like GDN. (Of course, with a different revshare, paying publishers directly, etc.) Is that far from the case?

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On Mar 24, 2017 6:25 AM, [REDACTED]@google.com> wrote:

Cool new developments. Will bring popcorn and watch this grow.

I wonder how this interacts with [REDACTED] We've positioned [REDACTED] as a mega-auction that AdX participates in. This new thing would presumably want priority or equal footing vs [REDACTED]

I don't think we'd want to design it this way, but I'd find the concept of a 2nd price auction (adx) bidding into a first price auction [REDACTED] bidding into a second price auction (this proposed shiny new thing) quite amusing.

On Fri, Mar 24, 2017 at 12:35 AM, [REDACTED]@google.com> wrote:
Thanks, [REDACTED]; this is *awesome*.

If I understand it correctly, this basically is very similar to AdX in terms of how it *works*, but [REDACTED]

1. would not presubmit creatives
2. might pay publishers directly, and
3. might be subject to a different revshare.

GDN / DBM shouldn't care about 2 (because it's Google paying publishers anyway), or 3 (since GDN + AdX is very close to [REDACTED]). I think this would be a phenomenal outcome, addressing a lot of the concerns we have about moving GDN / DBM to [REDACTED] Plus this would provide increased auction pressure on AdX, which is another great win.

[REDACTED] Do you think this is worth bringing up with [REDACTED] at this stage, as something to think about when preparing for the upcoming reviews?

Thanks,
[REDACTED]

On Thu, Mar 23, 2017 at 2:49 PM, [REDACTED]@google.com> wrote:

[REDACTED] and I just got off another call with [REDACTED] They're open to the idea of a new product that isn't exactly [REDACTED] or AdX, and they've asked us to propose something (WIP - see [here](#)). We believe that a clean 2nd-price auction would probably be acceptable to them but haven't asked yet.

On Thu, Mar 23, 2017 at 2:40 PM, [REDACTED]@google.com> wrote:
Hi all,

Serious question - If it's a clean second-price auction, would [REDACTED] prefer it not just because it makes bidding (a little) easier, but because it decreases friction / is inherently more efficient? Have we asked them / would we ask them?

Thanks,
[REDACTED]

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sent via phone

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